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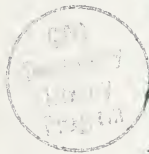
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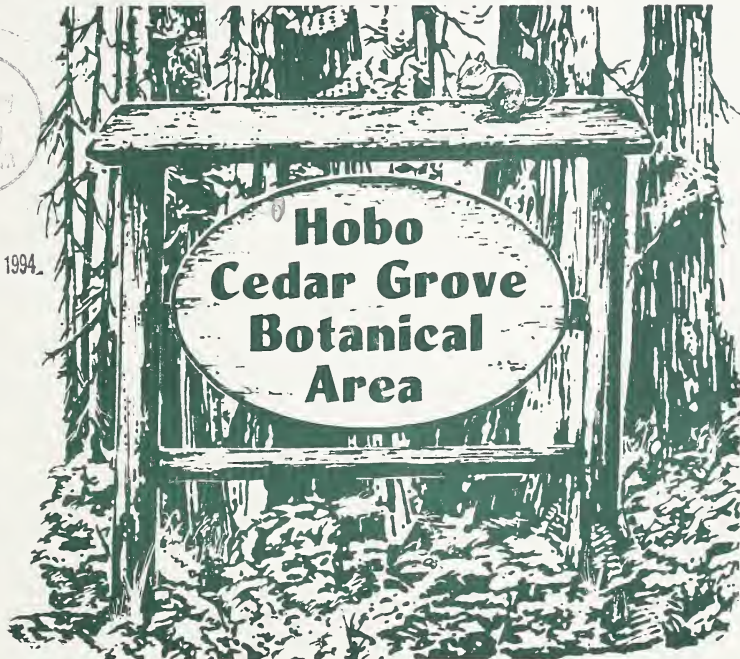
Idaho Panhandle
National Forests

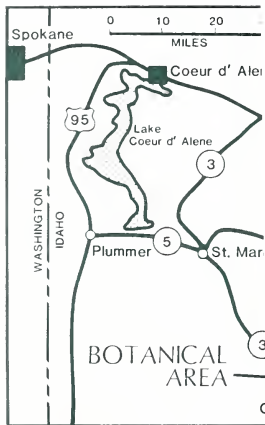
Self-Guided Nature Trail

St. Maries
Ranger District



MAY 17 1994





United States
Department of
Agriculture



National Agricultural Library



BOTANICAL
AREA

Clarkia

To Davies Pass &
Blackwell Divide

Hobo Pass
Elev. 4525

To Clarkia
via Merry Cr.
12 miles


0 1/2 1
Scale of Miles



IDAHO PANHANDLE
NATIONAL FORESTS

BOTANICAL AREA VICINITY MAP

Self-Guided Nature Trail #255



Kindle thy spirit with the fragrance of beautiful flowers and leaves, the touch of delicate mosses and herbs, and the wholeness of nature's serenity . . .

WELCOME

....to the Hobo Cedar Grove Botanical Trail 255.

A self-guided, 1/2 mile Nature Trail guides you past things of interest in the cool, shady forest. Allow 30 minutes for a leisurely hike. The numbered posts located along the trail correspond to the text in this leaflet. Use the botanical checklist on pages 12 and 13 to mark the trees, shrubs, and forbs you identify on your walk.

The Big Loop offers an additional mile of hiking trail. It allows an opportunity to further explore the grove on narrow trails with some short, moderate pitches.

For the enjoyment and appreciation of future generations, please remain on the trail and leave trees and plants unharmed for others to enjoy. Garbage service is not provided here. If you **PACK IT IN, PLEASE PACK IT OUT.**

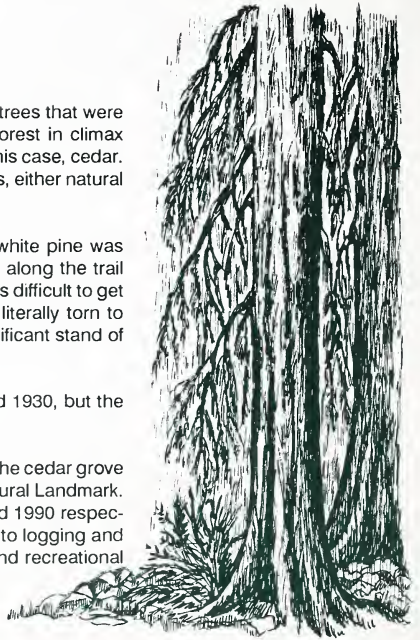
HISTORY

THE HOBO CEDAR GROVE - A CLIMAX FOREST - is made up of trees that were just seedlings in 1492 when Columbus discovered America. A forest in climax condition is stable and reproduces one dominant tree species--in this case, cedar. The grove will remain in climax condition as long as no disturbances, either natural or man-caused, occur within it.

WHY THIS GROVE EXISTS - Between 1915 and 1930, western white pine was logged throughout Marble Creek drainage. *Watch* for stumps left along the trail from this early-day logging. Cedar was not harvested because it was difficult to get it to market unscathed in the huge log drives. Cedar logs were literally torn to shreds when floated downstream during spring runoff. This magnificent stand of old-growth cedar has survived because of its location.

Major forest fires raged through the area in 1910, 1922, 1923, and 1930, but the grove was not burned.

In 1969 the Northern Region of the USDA Forest Service classified the cedar grove as a Botanical Area, and in 1980 it was designated a National Natural Landmark. The Nature Trail and Big Loop hiking trail, constructed in 1985 and 1990 respectively, touch only a small portion of the 240-acre plot. Now closed to logging and mineral entry, the grove is managed for its scientific, botanical, and recreational values.



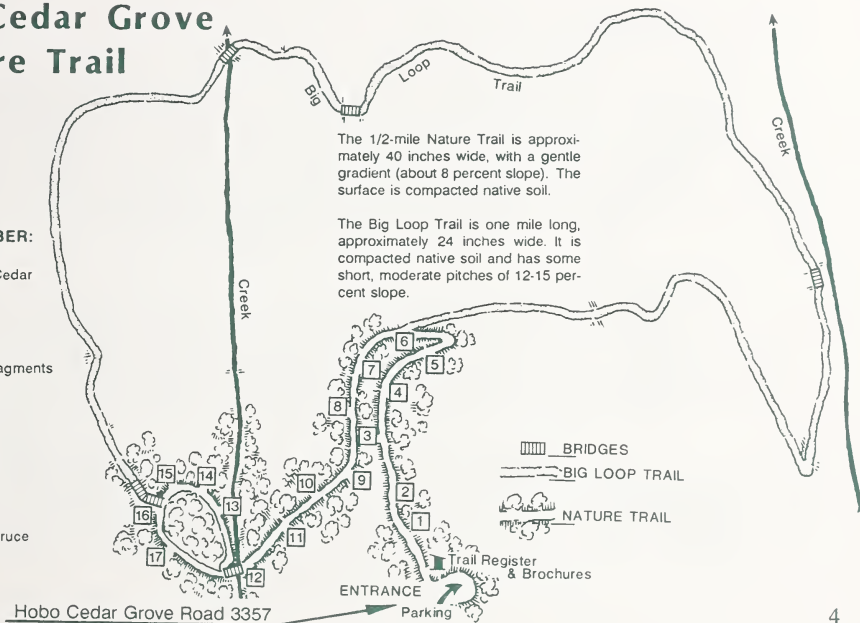
Hobo Cedar Grove Nature Trail

STATION NUMBER:

1. Western Red Cedar
2. Healing Scar
3. Grand Fir
4. Decaying Log
5. Western Larch
6. Large Rock Fragments
7. Growth Rings
8. Wildlife Tree
9. Burl
10. Snow Damage
11. Fern Glade
12. Sit and Listen
13. Pacific Yew
14. Wildlife
15. Englemann Spruce
16. Bog
17. Large Burl

The 1/2-mile Nature Trail is approximately 40 inches wide, with a gentle gradient (about 8 percent slope). The surface is compacted native soil.

The Big Loop Trail is one mile long, approximately 24 inches wide. It is compacted native soil and has some short, moderate pitches of 12-15 percent slope.



HOBO CEDAR GROVE BOTANICAL AREA
SELF-GUIDED NATURE TRAIL

1



WESTERN RED CEDAR - Can you reach around this giant cedar? It is 12 feet, 4 inches around (circumference), approximately 4 feet across (diameter), and 350 years old. Flat, fern-like branches, small cones, and light brown, stringy, fibrous bark are characteristic features. Indians used the cedar bark for weaving mats and baskets. Early pioneers made roofing and chinking for their shelters and fencing material of cedar. Today, common uses include fencing, shakes for roofing, telephone poles, and interior finish wood.

2



HEALING SCAR - What might live in the base of the tree to your right? Small mammals such as squirrels, chipmunks, and marten nest in cavities like this one. This tree was damaged by disease, fire, or animals years ago. The edges of the scar have grown inward during the healing process. Watch for younger trees where the bark has grown over such a wound, leaving a long, seamed scar.

3



GRAND FIR - This species has long, sweeping branches. The needles are flat, in two rows, 1"-2" long, dark green and shiny above, and silvery white beneath as on the young grand fir beside the trail. The bark is gray-brown, becoming deeply furrowed. The cones are upright near the top of the tree, 2"-4" long, green or brown in color. It is commonly used for dimensional lumber. The paper in this brochure may be made of grand fir pulp.

4



DECAYING LOG - When a tree dies and falls to the ground, it returns its precious nutrients back to the soil so new growth can begin. The process of nutrient exchange between dead and living organisms is called "nutrient cycling." Insects such as millipedes, ants, and termites cause shredding and rotting of the wood fibers down into small particles. The decaying center, called heart rot, is common in old-growth cedar. Caused by various fungi, it infects most cedars before they reach maturity.

5



WESTERN LARCH - Glance up to see three larch converge above you. Nicknamed "tamarack," it is frequently used for firewood. Its 1"-long needles turn yellow and are shed each fall, giving these conifers the appearance of dying. The bark is deeply furrowed, orange-red, loose, and scaly on old trees.

On the cut bank of the trail to your right lies the square pad of a tree in advanced stages of decomposition. The soil profile begins with surface litter and humus, the organic part of the soil resulting from the decay of leaves, trees, twigs, roots, and needles. Below it is the productive mineral portion consisting of volcanic ash. It was deposited 6,800 years ago after the eruption of Mt. Mazama, which formed Crater Lake in Oregon.

6



LARGE ROCK FRAGMENTS - Occasionally found near the surface of the soil. They have broken off of the bedrock buried deep beneath you and slowly worked to the surface. The bedrock consists of very old sediments that have been highly compacted and altered by heat. These sparkling rocks are called schist, quartzite, and diabase. The small amount of rock fragment content within the subsoil increases the water and nutrient reserves deep in the soil profile, making this a highly productive site.

7



GROWTH RINGS - The cross section of a tree can tell you a lot about a forest. The portion that is formed in the spring when the tree has plenty of water and its development is most vigorous consists of large, light-colored growth cells. In summer and fall, it grows more slowly because less moisture is available. The growth cells are smaller and thicker-walled, so they appear to be darker. Each pairing of light and dark is one year's growth. Count the dark rings to see how old this tree is. Where rings were far apart, the tree was receiving plenty of sunlight and nourishment from the soil and was growing rapidly. Where rings are close together, growth was slowed by lack of adequate light and nutrients. This tree also serves as a "nurse log." As it decays, it provides nourishment for the young cedars growing from it.

8



WILDLIFE TREE - Look up at the pits and holes in the standing dead tree down the hill to your right. The large, round hole about 40 feet up may be a nesting hole for cavity nesters such as birds and small mammals. Bald eagles and osprey use snags like this for perching when they hunt. Woodpeckers make holes in live trees as they search the bark for insects and grubs. While removing insects that are harmful to the tree, the pecking also exposes the tree's vulnerable core to disease and speeds the tree on the road to decay. Listen for the echoing sounds of a pileated woodpecker or sapsucker at work.

9



BURL - The large, warty lump growing on the tree to your left and on others in the grove may have been caused by accelerated cell or malformed bud growth. This abnormal mass is somewhat comparable to a tumor in human beings.

10



SNOW DAMAGE - Look up at the branches of the cedars on the right. Like twisted arms, deformed branches are caused by heavy snow loads, freezing weather, or wind damage when the tree was young. This kind of damage is relatively common and reduces the value of the mature tree for merchantable timber.

11



FERN GLADE - The giant cedars provide a shady, moist environment ideal for a variety of ferns and other ground covers. Lady fern, oak fern, the heart-shaped wild ginger, golden thread, bead lily, and huckleberry are among the plants covering this hillside.

The giant old cedars on the trail directly ahead probably began life from the seeds of the same cone where it fell to the ground. As the trees grew larger their bases bonded together.

12



SIT AND LISTEN - To the sounds of the grove. The stream tumbling by flows into Hobo Creek. You may hear the chatter of chipmunks and squirrels or the calls of the stellar jay or Canada jay (camp robber or grey jay). In the spring, the sound of a ruffed grouse drumming for his mate is common.

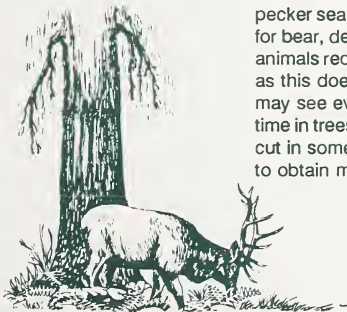


13



PACIFIC YEW - Was extremely important to hunting and gathering Indian tribes. Bows for hunting and warfare were made of yew. They split the wood with sharp rocks, then heated it over a warm fire while rubbing bear fat into it. The finishing touch was a strong sinew backing for extra bow strength. Where pacific yew is abundant, moose find food and shelter. You can identify yew by the pointed ends of the blunt needles, which are green underneath, and, in season, the bright red fruit.

14



WILDLIFE - Plays an active role in the forest. Remember the work of the woodpecker searching for food at Station 8? Do you think there is adequate forage here for bear, deer, and elk to survive? Although they do pass through this area, these animals require grasses, forbs, and brush for browsing, which a climax forest such as this does not provide. Cow elk may use this area for a calving ground. You may see evidence of owls, grouse, or marten in the grove. Marten spend much time in trees and build their dens in a hollow tree or log. Watch for square notches cut in some of the trees as you leave the grove. Trappers use them to set traps to obtain marten fur.

15



ENGLEMANN SPRUCE - The tree on your right behind the post can be recognized by its thin, scaly bark. The spruce needles are triangular, not flat like those of other evergreens, and they are sharp and pointed. When crushed, they have a pungent odor. The cones are 2" long with thin, papery scales.

16



BOG - Increased soil moisture coming down the hillside allows for the lush growth of vegetation here. Marshy areas have a fragile ecosystem of their own. Look for insects such as dragonflies and mosquitos (they may find you first!) who thrive in this environment. Similar areas are used by elk for wallows. Cedars here are susceptible to rots which travel by soil moisture. Their growth may be slowed by excess moisture which reduces oxygen available to the roots.

17



LARGE BURL - On the right. Do you remember what caused such abnormal growth? See Number 9 for a reminder.

Botanical Area Checklist:

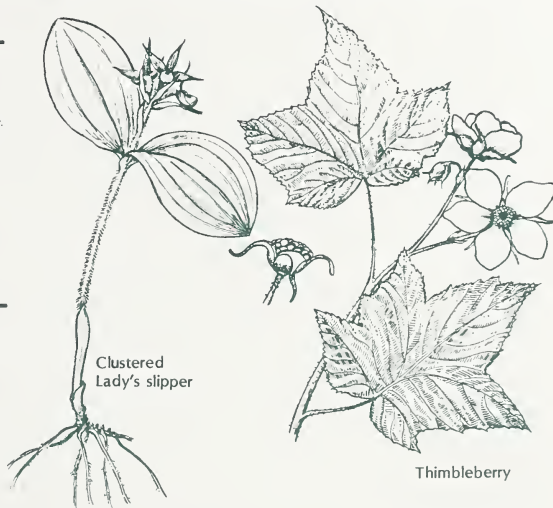
Use this handy checklist as you see and identify trees, shrubs, and forbs in the Botanical Area.

TREES

- | | |
|--|--|
| <input type="checkbox"/> Douglas' maple | <i>Acer glabrum</i> Torr. var. <i>douglasii</i> (Hook.) Dippel |
| <input type="checkbox"/> Engalmenn spruce | <i>Picea engelmannii</i> Parry |
| <input type="checkbox"/> Grand fir | <i>Abies grandis</i> (Dougl.) Forbes |
| <input type="checkbox"/> Inland Douglas-fir | <i>Pseudotsuga menziesii</i> (Mirbel) Franco var. <i>glauca</i> (Beissn.) Franco |
| <input type="checkbox"/> Subalpine fir | <i>Abies lesiocerpa</i> (Hook.) Nutt. |
| <input type="checkbox"/> Western hemlock | <i>Tsuga heterophylla</i> (Raf.) Serg. |
| <input type="checkbox"/> Western larch or tamarack | <i>Larix occidentalis</i> Nutt. |
| <input type="checkbox"/> Western red cedar | <i>Thuja plicata</i> Donn. |
| <input type="checkbox"/> Western white pine | <i>Pinus monticola</i> Dougl. |
| <input type="checkbox"/> Western yaw | <i>Taxus brevifolia</i> Nutt. |

SHRUBS

- | | |
|---|---|
| <input type="checkbox"/> Big huckleberry | <i>Veccinium membranaceum</i> Doug. |
| <input type="checkbox"/> Black aldarbarry | <i>Sambucus racemosa</i> L. var. <i>melanocarpa</i> (Gray) McMinn |
| <input type="checkbox"/> Little pipsawwe | <i>Chimaphila manziesii</i> (R. Br.) Sprang. |
| <input type="checkbox"/> Mountain-lovar | <i>Pachistima myrsinites</i> (Pursh) Raf. |
| <input type="checkbox"/> Peck fool'e hucklabarry | <i>Menziesia ferruginea</i> Smith var. <i>glabella</i> (Gray) |
| <input type="checkbox"/> Prickly current | <i>Ribes lacustre</i> (Pers.) Poir. |
| <input type="checkbox"/> Prince's-pine | <i>Chimaphila umbellata</i> (L.) Bert. |
| <input type="checkbox"/> Scouler willow | <i>Salix scouleriana</i> Berratt |
| <input type="checkbox"/> Sitke mountain-esh | <i>Sorbus sitchensis</i> Roemer var. <i>sitchensis</i> |
| <input type="checkbox"/> Sitka or wevy-laaved aldar | <i>Alnus sinuala</i> (Regel) Rydb. |
| <input type="checkbox"/> Thimblaberry | <i>Rubus parviflora</i> Nutt. |
| <input type="checkbox"/> Twintflower | <i>Linnaea borealis</i> L. |
| <input type="checkbox"/> Uteh honaysuckle | <i>Lonicara ulahensis</i> Wats. |



Clustered
Lady's slipper

Thimbleberry

FORBS

- ☐ Arrowleaf groundsel
- ☐ Baneberry
- ☐ Bigleaf sandwort
- ☐ Broadleaved monardella
- ☐ California false hellebore
- ☐ Ciesping-leaved twisted-stalk
- ☐ Common dandelion
- ☐ Common plantain
- ☐ Cootwort foamflower
- ☐ Cow-parsnip
- ☐ Clustered lady's slipper
- ☐ Derkwoods violet
- ☐ Enchanter's nightshade
- ☐ Fireweed
- ☐ Fregent bedstrew
- ☐ Heart-leaf erica
- ☐ Hooker's fairy-bell
- ☐ Horse sorrel
- ☐ Idaho goldthread
- ☐ Klamath or goat weed
- ☐ Largeleaved evens
- ☐ Little buttercup
- ☐ Liver-leaf wintergreen
- ☐ Oakes fairy slipper
- ☐ Peery everlasting
- ☐ Piper's anemone
- ☐ Queen's cup beedlily
- ☐ Scarlet paintbrush
- ☐ Self-heal
- ☐ Sidebells pyrole
- ☐ Side-flowered mitrewort
- ☐ Star-flowered false solomon's seal
- ☐ Small-flowered willow-herb
- ☐ Star-shaped mitrewort
- ☐ Stream violet
- ☐ Sweet-cicely

Senecio triangularis Hook. ver. *triangularis*
Actaea rubra (Ait.) Willd.
Arenaria macrophylla Hook.
Monarda cordifolia (Wats.) Pax & Hoffm.
Veratrum californicum Durend ver. *californicum*
Streptopus amplexifolius (L.) DC. ver. *chalcidatus* Fassett
Taraxacum officinale Weber
Plantago major L. ver. *major*
Tiaralla trifoliata L. ver. *unifoliata* (Hook.) Kurtz
Heracleum lanatum Michx.
Cypripedium fasciculatum Kall. (on Forest Service, Region One Sensitive Plant List)
Viola orbiculata Geyer
Circaea alpina L.
Epilobium angustifolium L.
Galium triflorum Michx.
Arnica cordifolia Hook. ver. *cordifolia*
Disporum hookeri (Torr.) Nicholson
Rumex acetosella L.
Coptis occidentalis (Nutt.) T. & G.
Hypericum perforatum L.
Geum macrophyllum Willd.
Ranunculus uncinatus D. Don
Pyrola asarifolia Michx. ver. *asarifolia*
Calypso bulbosa (L.)
Anaphalis margaritacea (L.) B. & H.
Anemone piperi Britt
Clintonia uniflora (Schult.) Kunth.
Castilleja miniata Dougl.
Prunella vulgaris L.
Pyrola secunda L.
Mitella strauropetala Piper
Smilacina stellata (L.) Desf.
Epilobium minutum Lindl.
Mitella caulescens Nutt
Viola glabella Nutt.
Osmorhiza chilensis H. & A.

- ☐ Treil plant
- ☐ Western meadowrue
- ☐ Western wake-robin or white trillium
- ☐ Western rattlesnake-plantain
- ☐ White vein pyrole
- ☐ Wild ginger
- ☐ Williams tell bluebells
- ☐ Wilcox's penstemon
- ☐ Yarrow

Adenocaulon bicolor Hook.
Thalictrum occidentale Grey
Trillium ovatum Pursh
Goodyera oblongifolia Raf.
Pyrola picta Smith
Asarum caudatum Lindl.
Mertensia paniculata (Ait.) G. Don ver. *borealis* (Mecbr.)
Penstemon wilcoxii Rydb.
Achillea millefolium L. ssp. *lanulosa* (Nutt.) Piper ver. *lanulosa*

FERNS AND FRIENDS

- ☐ Brittle bladderfern
- ☐ Common horsetail
- ☐ Common sword-fern
- ☐ Ledy fern
- ☐ Oak-fern
- ☐ Woyt mountain wood-fern

Cystopteris fragilis (L.) Bernh.
Equisetum arvense L.
Polystichum munitum (Keuff.) Presl ver. *munitum*
Athyrium filix-femina (L.) Roth.
Gymnocarpium dryopteris (L.) Newm.
Dryopteris eustriaca (Jacq.)

GRASS AND GRASS-LIKE

- ☐ Columbine brome
- ☐ Sedge
- ☐ Smellflowered woodrush

Bromus vulgaris (Hook.) Sheer var. *vulgans*
Carex sp.
Luzula parviflora (Ehrh.) Desv.

The White Pine Chapter of the Idaho Native Plant Society prepared this list of 77 plants found along the Nature Trail and the immediate parking area as part of the Marble Creek Centennial Project, June 1990.



1022395374

HOBO CEDAR GROVE

Botanical Area

We hope you enjoyed your tour of this area. Keep the brochure if you wish, or return it to the holder at the beginning of the trail for the next visitor.

If you want more information about this area of the Idaho Panhandle National Forests, please visit us at any of the offices listed below.

St. Maries Ranger District
Idaho Panhandle National Forests
P.O. Box 407
St. Maries, ID 83861
Telephone: (208) 245-2531

Forest Supervisor
Idaho Panhandle National Forests
1201 Ironwood Drive
Coeur d'Alene, ID 83814
Telephone: (208) 765-7223

Clarkia Work Center
Idaho Panhandle National Forests
Clarkia, ID 83812
Telephone: (208) 245-2514





1022395374

HISTORIC MARBLE CREEK

The Marble Creek Project: Building a Window on the Past

The Marble Creek country was an active homesteading and logging area in the early 1900s. Between 1915 and 1930, the giant western white pine was logged in the Hobo Cedar Grove and throughout the area. Relics of homestead cabins, splash dams, steam donkey engines, and railroad trestles remain for you to discover and explore.

R1-93-144

Hike Hobo Historical Trail 254 to see a logging camp, splash dam, and steam donkey on Hobo Creek. This 1-mile trail is rated "Easy" on the way down, but "More Difficult" on the return trip as there is a 600' elevation gain. See the vicinity map for location.

The Marble Creek trail system, including Trails 251, 261, and 273, is dotted with remains from the early logging days. Trail 273A leads to the site of the Delaney Creek sawmill and flume dam.

A visitor facility at the mouth of Marble Creek is planned to open in the fall of 1991. Additional interpretive trails and camping facilities are under construction.

The Marble Creek Project is a partnership between the citizens of Benewah and Shoshone Counties and the Idaho Panhandle National Forests to introduce travelers to their logging heritage--past, present, and future.

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